

**Mansfield Municipal Electric Department (MMED)**  
**Capital Work Plan**  
**(FY 2024) July 2023 – June 2024**

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**I. Executive Summary**

Each year MMED establishes a 'Capital Work Plan' to invest ratepayer funds to improve system infrastructure and solidify Mansfield Electric's position as an industry leader in providing safe, reliable, and affordable electric energy to all its customers.

MMED has consistently had four primary objectives:

- I. Maintain a safe working environment for its employees.
- II. Invest in a strong system reliability performance.
- III. Provide affordable and competitive electric rates to its ratepayers.
- IV. Provide financial benefits to the Town of Mansfield that is consistent with sound financial management of the utility.

Each year the Engineering and Operations staff of MMED spend considerable time identifying critical infrastructure improvements and overall MMED operational needs to improve system operations. After defining each project along with stating its intended goal, each investment is estimated by the following breakdown;

- Labor Expenses (MMED)
- Expenses for outside resources (Contractor, Police Details, etc.)
- Vehicle hours
- Timeline to complete
- Total Cost estimate

Finally, each investment in the 'Capital Work Plan' is classified in one of four type of projects:

1. One Time Projects - are to be completed in the Fiscal Year
2. Recurring Projects - with a period of two or more years
3. Billable Projects (ex. State Funded projects)
4. General Plant Improvements

From the analysis above, the MMED staff has identified (1) carry over project from FY23 and (24) new capital project investments equal to \$3,419,700 for FY24.

A summary breakdown of each is identified in the following chart:

# Mansfield Municipal Electric Department (MMED)

## Capital Work Plan

### (FY 2023) July 2023 – June 2024

Capital Work Plan Cost Summary July 2023 to June 2024										
IDENTIFIED PROJECTS										
Project	GL	Cat*	Project	Contract	Labor	Materials	Trucks	Details	Total	Hours
FY 24-1	367-144	2	Gilbert ROW UG cable project		\$95,000	\$1,250,000	\$20,000	\$10,000	\$1,375,000	
FY 24-2	365-231	2	Animal Guard Project CARRY OVER		\$25,000	\$75,000	\$0	\$0	\$100,000	208
FY 24-3	365-215	2	Air Break Switch Installation Project		\$7,500	\$15,000	\$3,000	\$0	\$25,500	63
FY 24-4	367-213	2	Live Front to Dead Front Switch Replacement		\$20,000	\$75,000	\$10,200	\$4,000	\$109,200	167
FY 24-5	368-214	2	Live Front to Dead Front Transformer Replacement		\$20,000	\$60,000	\$7,500	\$4,000	\$91,500	167
FY 24-6	398-300	2	EV Charging Infrastructure	\$50,000	\$10,000	\$15,000	\$3,000		\$78,000	83
FY 24-7	368-217	2	URD single phase pad mount transformer replacement - rusting out units		\$14,000	\$17,000	\$3,400	\$0	\$34,400	117
FY 24-8	390	1	Gilbert Street Storage Bld CARRY OVER	\$135,000					\$135,000	
FY 24-9	390	1	Facility Enhancements - High Street Office CARRY OVER	\$185,000					\$185,000	-
FY 24-10	365-220		Field Recloser CARRY OVER		\$30,000	\$120,000			\$150,000	
FY 24-11	392	1	Digger (FY25 DELIVERY/PAYMENT)	\$300,000					\$300,000	
FY 24-12	392		Withdrawn						\$0	
FY 24-13	390-223	1	Gates	\$80,000					\$80,000	
FY 24-14	390-300	1	Ceiling Tile Replacement	\$20,000					\$20,000	
FY 24-15	367-214	2	Pothead Replacement		\$30,000	\$20,000	\$5,000	\$5,000	\$60,000	
FY 24-16	390	1	High St Garage Sprinkler System	\$130,000					\$130,000	
<b>Total Specifically Identified</b>				<b>\$900,000</b>	<b>\$251,500</b>	<b>\$1,647,000</b>	<b>\$52,100</b>	<b>\$23,000</b>	<b>\$2,873,600</b>	<b>804</b>
GENERAL										
FY 24-17	364-715	4	Pole Replacements		\$30,000	\$26,700	\$2,400	\$2,000	\$61,100	250
FY 24-18	415-000	3	Reimbursable Projects						\$0	480
FY 24-19	364 /365	4	Overhead conductors necessitated by field conditions, including repair of outages including fiber system.	\$26,000	\$75,000	\$50,000	\$12,000	\$9,000	\$172,000	625
FY 24-20	366 /367	4	Underground cable and conduit necessitated by field conditions, including repair of outages.	\$10,000	\$19,000	\$20,000	\$2,500	\$2,500	\$54,000	158
FY 24-21	368	4	Transformers for installation, labor included in specific projects and additional work.			\$85,000			\$85,000	-
FY 24-22	369	4	Installation of new/upgraded electric services required.		\$13,000	\$3,000			\$16,000	108
FY 24-23	370	4	Metering equipment for new and existing customers. Not including remote reading meters.		\$2,000	\$25,000			\$27,000	17
FY 24-24	373	4	Street Lighting		\$6,000	\$10,000			\$16,000	50
FY 24-25	390	4	Structures and Improvements			\$10,000			\$10,000	-
FY 24-26	394	4	Tools for vehicles			\$45,000			\$45,000	-
FY 24-27	395	4	New laboratory equipment			\$20,000			\$20,000	-
FY 24-28	397	4	Contingency for purchase of miscellaneous equipment.			\$20,000			\$20,000	-
FY 24-29	399	4	Purchase of computer hardware and software for MMED PC's and network.			\$20,000			\$20,000	-
<b>Total Specifically Identified</b>				<b>\$36,000</b>	<b>\$145,000</b>	<b>\$334,700</b>	<b>\$16,900</b>	<b>\$13,500</b>	<b>\$546,100</b>	<b>1,688</b>
<b>Subtotal FY 24</b>				<b>\$936,000</b>	<b>\$396,500</b>	<b>\$1,981,700</b>	<b>\$69,000</b>	<b>\$36,500</b>	<b>\$3,419,700</b>	<b>2,493</b>
* Categories										
1. Single Year Projects - are to be completed in the Fiscal Year										
2. Multiple Year Projects - with a period of two or more years										
3. Billable Projects (ex. State Funded projects)										
4. Recurring Projects General Plant Improvements										
<b>Bold totals have been revised from Nov draft documents.</b>										

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### **III. Capital Work Project Descriptions**

#### **FY24 Capital Projects:**

- FY24-1: Gilbert ROW UG cable project –project to install new underground cable for the 1W1, 1W4 and 1W7 from Sweet’s Pond to Justin Drive.
- FY24-2: Animal Guard Installation Project Carry Over – install new animal guard products at potential animal contact locations to reduce outages. Locations include riser poles, transformer banks and switch/reclosers.
- FY24-3: Airbreak Switch Installation - install (4) new airbreak switches to allow for greater flexibility with circuit switching during power restoration.
- FY24-4: Live Front to Dead Front Switch Replacement – replace (4) live front switches with dead front switches to improve customer service reliability.
- FY24-5: Live Front to Dead Front Transformer Replacement – replace (4) live front transformers with dead front transformers to improve customer service reliability.
- FY24-6: EV Charging Infrastructure – install EV charging station at MBTA parking lot.
- FY24-7: Replacement of URD single phase pad mount transformers. – replace transformers in residential subdivisions that need replacement. This project will increase system reliability by replacing deteriorated transformers.
- FY 24-8: Gilbert Street Storage Building Carry Over – storage building for equipment and tools at Gilbert Street Substation.
- FY24-9: Facility Enhancements High Street Office – renovate customer service space and facility bathrooms which are 40+ years old. Due to pandemic, the existing open office space for (3) customer service personnel is not optimal working space.
- FY24-10: Field Recloser Replacement Project Carry Over – replacing old field reclosers and controllers in the field.
- FY24-11: Digger – expect FY25 delivery and payment. Digger to be replaced is a 2000 Sterling truck with 23200 miles on it.
- FY24-12: *Withdrawn*

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- FY24-13: Motorized Gates – replace and install new motorized gates. Four gates at High Street and 1 gate at Gilbert Street Substation.
- FY24-14: Ceiling Tile Replacement – High Street office area replace ceiling tiles for uniform appearance.
- FY24-15: Pothead Replacement Project – replace porcelain pothead terminations (transition between OH and UG cable).
- FY24-16: High Street Garage Sprinkler System – install sprinkler system in garage area where vehicles are stored.
- FY24-17: Pole Replacements – increase system reliability by replacing deteriorated poles. MMED maintains a list of poles that need to be replaced.
- FY24-18: Reimbursable Customer Projects – work needed to meet new customer service deadlines. All costs reimbursed by the customer.
- FY24-19: Overhead Emergency Repair Contingency – increase system reliability by addressing unforeseen problems as they arise. This is for unforeseen overhead pole work that must be performed based on customer complaint, system conditions or storm repair.
- FY24-20: Underground Cable Repair Contingency – increase system reliability by addressing unforeseen problems as they arise. This is for unforeseen underground cable work that must be performed based on customer complaint, system outage conditions or storm repair.
- FY24-21: Transformers as Required – meet new customer service deadlines by maintaining an adequate stock of transformers.
- FY24-22: Installation of new/upgraded electric services required – meet customer demands with the timely installation of new services. This is for the replacement of electric services that fail and the installation of new services.
- FY24-23: Metering Equipment – meet new customer deadlines by maintaining a stock of metering equipment required to properly meter customer loads. This is for the purchase and installation of metering equipment such as current transformers and potential transformers and related equipment.
- FY24-24: Street Lighting – meet customer service standards by the timely repair of street light outages. This is for the replacement of street light components that have failed.
- FY24-25: Structures and Improvements – as needed work needed for MMED structures.

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FY24-26: Tools for Vehicles – This is for the purchase of new tools.

FY24-27: New Laboratory Equipment – purchase of new equipment as required.

FY24-28: Contingency for Purchase of miscellaneous equipment – this is for the purchase of new equipment as needed.

FY24-29: Computer hardware and software – purchase of new computers and software.

**Mansfield Municipal Electric Department  
Projected Five Year Plan March 2023  
Capital Budget**

Description	FY24 Proposed	FY25 Projected	FY26 Projected	FY27 Projected	FY28 Projected	FY29 Projected
Ongoing Annual Capital Requirements (1)	\$ 1,116,700	\$ 1,172,535	\$ 1,231,162	\$ 1,292,720	\$ 1,357,356	\$ 1,425,224
Gilbert ROW Cable Project	\$ 1,375,000	\$ 50,000				
Animal Guard Installation Project	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000		
Eastman Street Underground Project			\$ 200,000	\$ 200,000	\$ 200,000	
Facilities Enhancements (2)	\$ 320,000	\$ 150,000	\$ 100,000			
High Street Garage Sprinkler System	\$ 130,000					
EV Charging Station	\$ 78,000					
Garage Floor Drainage System		\$ 275,000				
Capacitor Controls Replacement		\$ 150,000	\$ 100,000			
Future Capital Investments				\$ 1,000,000	\$ 1,000,000	\$ 1,200,000
New Vehicles (3)	\$ 300,000	\$ 350,000	\$ 335,000	\$ 300,000	\$ 300,000	\$ 40,000
<b>Total Projected Annual Capital Budget</b>	<b>\$ 3,419,700</b>	<b>\$ 2,247,535</b>	<b>\$ 2,066,162</b>	<b>\$ 2,892,720</b>	<b>\$ 2,857,356</b>	<b>\$ 2,665,224</b>

**NOTES:**

- (1) Ongoing Capital Budget projections based on projected proposed budget with 5% adder through FY26.  
(2) This project includes \$185k for Office renovation and \$135k for Gilbert St Storage Building.  
(3) FY 24 includes \$300,00 for new Digger but anticipate FY25 Delivery/Payment.

**MANSFIELD MUNICIPAL ELECTRIC DEPARTMENT VEHICLE EXPENSE LIST      Date    11/8/22**

VEH.	YEAR	Years old	MANF.	MODEL	VIN	PLATE #	G.V.W.	FUEL	COST \$	Repair / PM Expenses	Mileage / Hours	Assigned to	VEH.	Replace	To Be Replaced in
501	2020	2	Chevy	Bolt EV	1G1FY6S07L4139003	M6980A	N/A	Elect	\$31,350.00	\$0.00	1015	Office	501	2035	FY35
509	2008	14	Ford	Taurus	1FAHP24W68G123951	M79955	N/A	gas	\$18,950.00	\$4,087.37	33011	Plant	509	2026	FY26
510	2012	10	Ford	F250 4X4 P/U	1FT7X2B65CEA43053	M88522	5,080	gas	\$33,849.00	\$17,025.00	55331	Sta Op	510	2026	FY26
511	2015	7	Ford	F250 4X4 P/U	1FT7X2B67FEB98501	M93043	8,800	gas	\$38,672.00	\$6,547.86	63741	Stores	511	2027	FY27
512	2017	5	Ford	F550 Dump	1FDUF5HY5HED14499	M99946	19,000	gas	\$72,547.59	\$3,939.62	12378	Line	512	2037	FY37
513	2007	15	Ford	F350 Utility	1FTWF31YX7EA84582	M80-333	10,700	gas	\$34,001.00	\$11,160.56	94626	Line	513	?	?
514	2015	7	Chev	K2500 Utility	1GB0KUEG1FZ544037	M93596	5,080	gas	\$39,997.00	\$6,015.88	103472	Line	514	2027	FY27
515	2020	2	Ford	Ranger R1F P/U	1FTER1FH4LLA52118	M53-630	5,080	gas	\$29,605.00	\$1,502.20	26154	Meter	515	2027	FY27
516	2016	6	Ford	F350 Utility	1FTRF3B64GED28186	M97480	11,000	gas	\$34,247.08	\$9,225.68	38857	Meter	516	2028	FY28
517	2019	3	Ford	F350 Utility	1FD8X3B65KEC63135	M1839A	11,000	gas	\$47,824.47	\$2,130.33	12191	Station Op.	517	2031	FY31
518	2011	11	IH	4400 /Posi-Plus	1HTMKAAR8BH362390	M84269	35,000	diesel	\$220,229.00	\$56,046.04	42888	Line Bucket	518	2026	FY26
520	2020	2	IH	MV607 Bucket	3HAEUMMR7LL391662	M1852B	35,000	diesel	\$271,982.00	\$0.00	1435	Line Bucket	520	2035	FY35
521	2020	2	Dodge	Ram crew cab	1C6RR7KG2LS155245	M7438A	6,800	gas	\$35,000.00	\$1,644.41	10873	Line Foreman	521	2027	FY28
522	2016	6	Ford	Ford F750	1FDYX7DE4GDA02779	M95923	35,000	diesel	\$229,641.00	\$22,983.98	28712	Line Bucket	522	2031	FY31
523	2000	22	Sterling	L7501 Digger	2FZHAJBB5YAG46810	M58-142	36,220	diesel	\$144,790.00	\$50,933.30	22338	Spare Digger	523	2015	FY25
524	2022	0	Deere	310SL HL	1T0310HLCNF412703	M9157A		diesel	\$130,000.00	\$0.00	35	Backhoe	524	2042	FY52
525	2020	2	INTL	MV607 Bucket	3HAEUMMRXLL858086	M6452A	33,000	diesel	\$297,885.00	\$6,456.14	16465	Line Bucket	525	2035	FY35
526	2015	7	Frtlnr	MT55/Utilimaster	4UZAARDU4FCGB9088	M89268	25,500	diesel	\$136,938.00	\$11,700.44	3933	Line UG splice	526	2015	FY30
527	2006	16	Sterling	Swaploader	2FZACHCS66AM34219	M41-322	35,000	diesel	\$170,788.00	\$146,824.13	20700	Line	527	2026	FY27
528	2022	0	IH	MV607 Bucket	3HAEUMMR4N462237	M9156A	35,000	diesel	\$258,363.00	\$1,678.70	3948	Spare Bucket	528	2021	FY21
529	2016	6	IH	Terex Digger	3HAMMMMR8GL109952	M94817	37,000	diesel	\$249,902.00	\$23,330.74	11789	Line Digger	529	2016	FY31
530	2012	10	Ford	F250 4X4 P/U	1FT7X2B68CEC27564	M84020	8,800	gas	\$28,970.00	\$13,809.82	103377	Line Crew	530	?	?
543	1996	24	JCB	Backhoe 214	SLP214TCTE0444474	M54-511	16,200	diesel	\$48,286.00	\$71,258.13	4854	Line Crew	543	?	?
544	2001	21	IH	M4900	1HTSDAAR01H355787	M65557	35,000	diesel	\$129,470.00	\$60,441.19	51932	Line Crew	544	?	?
									\$2,524,181.14	\$397,042.20					

Vehicle Replacement Guide Lines:

- |   |  |          |
|---|--|----------|
| 1 | Heavy Duty work vehicles (Digger and Bucket trucks) to be replaced every | 15 years |
| 2 | Small pickups to be replaced every                                       | 7 years  |
| 3 | Large pickups to be replaced every                                       | 12 years |
| 4 | Pool cars to be replaced every   | 15 years |
| 5 | Dump trucks to be replaced every   | 20 years |
| 6 | Backhoe to be replaced every   | 30 years |

Vehicle replacement is based on the guidelines above as well as the operational evaluation of the vehicle and useful remaining life.